$$CE_{Pb} = \frac{E_{Pb}}{P_{Pb}} \tag{Eq. 2}$$

Where:

CE_{Pb} = quarterly production-based lead compound emission rate, in units of pounds of lead emissions per ton of lead produced:

 E_{Pb} = quarterly lead emissions, pounds per quarter; and

 $P_{Pb} = quarterly$ lead production, tons per quarter.

- (7) To determine quarterly compliance with the emissions standard for lead compounds under §63.1543(b), sum the lead compound emission rates for the current and previous three quarters for the sources in §63.1543(b), as determined in accordance with paragraphs (a)(1) through (4) of this section.
- (b) Owners and operators must perform an initial compliance test to demonstrate compliance with the sinter building in-draft requirements of \$63.1543(d) at each doorway opening in accordance with paragraphs (b)(1) through (4) of this section.
- (1) Use a propeller anemometer or equivalent device.
- (2) Determine doorway in-draft by placing the anemometer in the plane of the doorway opening near its center.
- (3) Determine doorway in-draft for each doorway that is open during normal operation with all remaining doorways in their customary position during normal operation.
- (4) Do not determine doorway indraft when ambient wind speed exceeds 2 meters per second.
- (c) Performance tests shall be conducted under such conditions as the Administrator specifies to the owner or operator based on representative performance of the affected source for the period being tested. Upon request, the owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests.

[76 FR 70854, Nov. 15, 2011]

§ 63.1547 Monitoring requirements.

(a) Owners and operators of primary lead processors must prepare, and at all times operate according to, a stand-

ard operating procedures manual that describes in detail the procedures for inspection, maintenance, and bag leak detection and corrective action for all baghouses that are used to control process, process fugitive, or fugitive dust emissions from any source subject to the lead emission standards in §§ 63.1543 and 63.1544, including those used to control emissions from general ventilation systems.

- (b) The standard operating procedures manual for baghouses required by paragraph (a) of this section must be submitted to the Administrator or delegated authority for review and approval.
- (c) The procedures specified in the standard operating procedures manual for inspections and routine maintenance must, at a minimum, include the requirements of paragraphs (c)(1) through (8) of this section.
- (1) Weekly confirmation that dust is being removed from hoppers through visual inspection or equivalent means of ensuring the proper functioning of removal mechanisms.
- (2) Daily check of compressed air supply for pulse-jet baghouses.
- (3) An appropriate methodology for monitoring cleaning cycles to ensure proper operation.
- (4) Monthly check of bag cleaning mechanisms for proper functioning through visual inspection or equivalent means
- (5) Quarterly visual check of bag tension on reverse air and shaker-type baghouses to ensure that bags are not kinked (kneed or bent) or laying on their sides. Such checks are not required for shaker-type baghouses using self-tensioning (spring loaded) devices.
- (6) Quarterly confirmation of the physical integrity of the baghouse through visual inspection of the baghouse interior for air leaks.
- (7) Quarterly inspection of fans for wear, material buildup, and corrosion through visual inspection, vibration detectors, or equivalent means.

- (8) Except as provided in paragraph (h) of this section, continuous operation of a bag leak detection system.
- (d) The procedures specified in the standard operating procedures manual for maintenance must, at a minimum, include a preventative maintenance schedule that is consistent with the baghouse manufacturer's instructions for routine and long-term maintenance.
- (e) The bag leak detection system required by paragraph (c)(8) of this section must meet the specifications and requirements of (e)(1) through (8) of this section.
- (1) The bag leak detection system must be certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of 10 milligram per actual cubic meter (0.0044 grains per actual cubic foot) or less
- (2) The bag leak detection system sensor must provide output of relative particulate matter loadings, and the owner or operator must continuously record the output from the bag leak detection system.
- (3) The bag leak detection system must be equipped with an alarm system that will sound when an increase in relative particulate loading is detected over a preset level, and the alarm must be located such that it can be heard or otherwise determined by the appropriate plant personnel.
- (4) Each bag leak detection system that works based on the triboelectric effect must be installed, calibrated, and maintained in a manner consistent with guidance provided in the U.S. Environmental Protection Agency guidance document "Fabric Filter Bag Leak Detection Guidance" (EPA-454/R-98-015). Other bag leak detection systems must be installed, calibrated, and maintained in a manner consistent with the manufacturer's written specifications and recommendations.
- (5) The initial adjustment of the system must, at a minimum, consist of establishing the baseline output by adjusting the sensitivity (range) and the averaging period of the device, and establishing the alarm set points and the alarm delay time.
- (6) Following initial adjustment, the owner or operator must not adjust the

- sensitivity or range, averaging period, alarm set points, or alarm delay time, except as detailed in the approved SOP required under paragraph (a) of this section. In no event shall the sensitivity be increased by more than 100 percent or decreased more than 50 percent over a 365-day period unless a responsible official certifies that the baghouse has been inspected and found to be in good operating condition.
- (7) For negative pressure, induced air baghouses, and positive pressure baghouses that are discharged to the atmosphere through a stack, the bag leak detector must be installed downstream of the baghouse and upstream of any wet acid gas scrubber.
- (8) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.
- (f) The standard operating procedures manual required by paragraph (a) of this section must include a corrective action plan that specifies the procedures to be followed in the event of a bag leak detection system alarm. The corrective action plan must include at a minimum, procedures to be used to determine the cause of an alarm, as well as actions to be taken to minimize emissions, which may include, but are not limited to, the following.
- (1) Inspecting the baghouse for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in emissions.
- (2) Sealing off defective bags or filter media.
- (3) Replacing defective bags or filter media, or otherwise repairing the control device.
- (4) Sealing off a defective baghouse compartment.
- (5) Cleaning the bag leak detection system probe, or otherwise repairing or maintaining the bag leak detection system.
- (6) Shutting down the process producing the particulate emissions.
- (g) The percentage of total operating time the alarm on the bag leak detection system sounds in a 6-month reporting period must be calculated in order to determine compliance with the five percent operating limit in §63.1543(g). The percentage of time the alarm on the bag leak detection system

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sounds must be determined according to paragraphs (g)(1) through (3) of this section.

- (1) For each alarm where the owner or operator initiates procedures to determine the cause of an alarm within 1 hour of the alarm, 1 hour of alarm time must be counted.
- (2) For each alarm where the owner or operator does not initiate procedures to determine the cause of the alarm within 1 hour of the alarm, alarm time will be counted as the actual amount of time taken by the owner or operator to initiate procedures to determine the cause of the alarm.
- (3) The percentage of time the alarm on the bag leak detection system sounds must be calculated as the ratio of the sum of alarm times to the total operating time multiplied by 100.
- (h) Baghouses equipped with HEPA filters as a secondary filter used to control process or process fugitive sources subject to the lead emission standards in §63.1543 are exempt from the requirement in paragraph (c)(8) of this section to be equipped with a bag leak detector. The owner or operator of an affected source that uses a HEPA filter must monitor and record the pressure drop across the HEPA filter system daily. If the pressure drop is outside the limit(s) specified by the filter manufacturer, the owner or operator must take appropriate corrective measures, which may include, but not be limited to, the following:
- (1) Inspecting the filter and filter housing for air leaks and torn or broken filters.
- (2) Replacing defective filter media, or otherwise repairing the control device
- (3) Sealing off a defective control device by routing air to other comparable control devices.
- (4) Shutting down the process producing the particulate emissions.
- (i) Owners and operators must monitor sinter machine building in-draft to demonstrate continued compliance with the operating standard specified in §63.1543(d) in accordance with either paragraph (i)(1), (2), or (3) of this section.
- (1) Owners and operators must check and record on a daily basis doorway in-

draft at each doorway in accordance with the methodology specified in \$63.1546(b).

- (2) Owners and operators must establish and maintain baseline ventilation parameters which result in a positive in-draft according to paragraphs (i)(2)(i) through (iv) of this section.
- (i) Owners and operators must install, calibrate, maintain, and operate a monitoring device that continuously records the volumetric flow rate through each separately ducted hood; or install, calibrate, maintain, and operate a monitoring device that continuously records the volumetric flow rate at the control device inlet of each exhaust system ventilating the building. The flow rate monitoring device(s) can be installed in any location in the exhaust duct such that reproducible flow rate measurements will result. The flow rate monitoring device(s) must have an accuracy of plus or minus 10 percent over the normal process operating range and must be calibrated according to manufacturer's instructions.
- (ii) During the initial demonstration of sinter building in-draft, and at any time the owner or operator wishes to re-establish the baseline ventilation parameters, the owner or operator must continuously record the volumetric flow rate through each separately ducted hood, or continuously record the volumetric flow rate at the control device inlet of each exhaust system ventilating the building and record exhaust system damper positions. The owner or operator must determine the average volumetric flow rate(s) corresponding to the period of time the in-draft compliance determinations are being conducted.
- (iii) The owner or operator must maintain the volumetric flow rate(s) at or above the value(s) established during the most recent in-draft determination at all times the sinter machine is no operation. Volumetric flow rate(s) must be calculated as a 15-minute average.
- (iv) If the volumetric flow rate is monitored at the control device inlet, the owner or operator must check and record damper positions daily to ensure they are in the positions they were in

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during the most recent in-draft determination.

- (3) An owner or operator may request an alternative monitoring method by following the procedures and requirements in §63.8(f) of the General Provisions.
- (j) Each owner or operator of new or modified sources listed under §63.1543 (a)(1) through (9) and (b) must install, calibrate, maintain, and operate a continuous emission monitoring system (CEMS) for measuring lead emissions and a continuous emission rate monitoring system (CERMS) subject to Performance Specification 6 of appendix B to part 60.
- (1) Each owner or operator of a source subject to the emissions limits for lead compounds under §63.1543(a) and (b) must install a CEMS for measuring lead emissions within 180 days of promulgation of performance specifications for lead CEMS.
- (i) Prior to promulgation of performance specifications for CEMS used to measure lead concentrations, an owner or operator must use the procedure described in §63.1546(a)(1) through (7) of this section to determine compliance.
- (2) If a CEMS used to measure lead emissions is applicable, the owner or operator must install a CERMS with a sensor in a location that provides representative measurement of the exhaust gas flow rate at the sampling location of the CEMS used to measure lead emissions, taking into account the manufacturer's recommendations. The flow rate sensor is that portion of the system that senses the volumetric flow rate and generates an output proportional to that flow rate.
- (i) The CERMS must be designed to measure the exhaust gas flow rate over a range that extends from a value of at least 20 percent less than the lowest expected exhaust flow rate to a value of at least 20 percent greater than the highest expected exhaust gas flow rate.
- (ii) The CERMS must be equipped with a data acquisition and recording system that is capable of recording values over the entire range specified in paragraph (j)(2)(i) of this section.
- (iii) Each owner or operator must perform an initial relative accuracy test of the CERMS in accordance with the applicable Performance Specifica-

tion in appendix B to part 60 of the chapter.

- (iv) Each owner or operator must operate the CERMS and record data during all periods of operation of the affected facility including periods of startup, shutdown, and malfunction, except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments.
- (3) Each owner or operator must calculate the lead emissions rate in tons per year by summing all hours of CEMS data for a year to determine compliance with §63.1543(b).
- (i) When the CERMS are unable to provide quality assured data the following applies:
- (A) When data are not available for periods of up to 48 hours, the highest recorded hourly emission rate from the previous 24 hours must be used.
- (B) When data are not available for 48 or more hours, the maximum daily emission rate based on the previous 30 days must be used.

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§63.1548 Notification requirements.

- (a) The owner or operator of a primary lead processor must comply with the notification requirements of §63.9 of subpart A, General Provisions as specified in Table 1 of this subpart.
- (b) The owner or operator of a primary lead processor must submit the standard operating procedures manual for baghouses required under §63.1547(a) to the Administrator or delegated authority along with a notification that the primary lead processor is seeking review and approval of the manual and procedures. Owners or operators of existing primary lead processors must submit this notification no later than November 6, 2000. The owner or operator of a primary lead processor that commences construction or reconstruction after April 17, 1998, must submit this notification no later than 180 days